

Appendix D

**Non-Covered Sensitive Species Potentially
Present in the Planning Area and Off-Site
Conservation Areas**

Non-Covered Sensitive Species Potentially Present in the Planning Area and Off-Site Conservation Areas

D.1 Non-Covered Sensitive Species That Could Be Present in the Planning Area

D.1.1 Species Status

Sensitive species that are not covered by the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) Conservation Plan (Conservation Plan) but are present or could be present in the planning area are listed in Table D-1, which is followed by descriptions of these species or groups of species. The Conservation Plan's covered and evaluation species are described in Appendix I.

Table D-1. Status of Non-Covered Sensitive Species That Could Be Present in the Planning Area

Common Name <i>Scientific Name</i>	Federal Status ¹	Arizona Status ²	California Status ³	Nevada Status ⁴
Mammals				
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	—	—	CSC	—
Occult little brown bat <i>Myotis lucifugus occultus</i>	—	—	CSC	—
Small-footed myotis <i>Myotis ciliolabrum</i>	—	—		—
Fringed myotis <i>Myotis thysanodes</i>	—	—		—
Cave myotis <i>Myotis velifer</i>	—	—	CSC	—
Yuma myotis <i>Myotis yumanensis</i>	—	—	CSC	—

Common Name <i>Scientific Name</i>	Federal Status ¹	Arizona Status ²	California Status ³	Nevada Status ⁴
Spotted bat <i>(Euderma maculatum)</i>	—	ASC	CSC	NT
Allen's big-eared bat <i>Indionycteris (Plecotus) phyllotis</i>	—	—		—
Pallid bat <i>Antrozous pallidus</i>	—	—	CSC	—
Pocketed freetail bat <i>Nyctinomops femorosaccus</i>	—	—	CSC	—
Big freetail bat <i>Nyctinomops macrotis</i>	—	—	CSC	—
Greater western mastiff bat <i>Eumops perotis californicus</i>	—	—	CSC	—
Yuma puma <i>Felis concolor browni</i>	—	ASC	CSC	—
Birds				
Clark's grebe <i>Aechmophorus clarkii</i>	—	ASC	—	—
California brown pelican <i>Pelecanus occidentalis</i>	FE	—	CE/FP	NP
American white pelican <i>Pelecanus erythrorhynchos</i>	—	—	CSC	NP
Double-crested cormorant <i>Phalacrocorax auritus</i>	—	—	CSC ⁵	—
American bittern <i>Botaurus lentiginosus</i>	—	ASC	—	—
Great blue heron <i>Ardea herodias</i>	—	—	—	—
Great egret <i>Ardea alba</i>	—	ASC	—	—
Snowy egret <i>Egretta thula</i>	—	ASC	—	—
Black-crowned night-heron <i>Nycticorax nycticorax</i>	—	—	—	—
White-faced ibis <i>Plegadis chihi</i>	—	—	CSC ⁵	NP
Wood stork <i>Mycteria americana</i>	—	—	CSC	—
Turkey vulture <i>Cathartes aura</i>	—	—	—	NP
Fulvous whistling-duck <i>Dendrocygna bicolor</i>	—	—	CSC	—

Common Name <i>Scientific Name</i>	Federal Status ¹	Arizona Status ²	California Status ³	Nevada Status ⁴
Redhead <i>Aythya americana</i>	—	—	CSC	—
Osprey <i>Pandion haliaetus</i>	—	ASC	—	NP
Bald eagle <i>Haliaeetus leucocephalus</i>	FT	ASC	CE/FP	NE
White-tailed kite <i>Elanus leucurus</i>	—	—	CSC	NP
Northern harrier <i>Circus cyaneus</i>	—	—	CSC	NP
Cooper's hawk <i>Accipiter cooperi</i>	—	—	CSC ⁵	NP
Harris' hawk <i>Laterallus jamaicensis coturniculus</i>	—	—	CSC	NP
Swainson's hawk <i>Buteo swainsoni</i>	—	—	CT	NP
Ferruginous hawk <i>Buteo regalis</i>	—	ASC	CSC ⁵	NP
Golden eagle <i>Aquila chrysaetos</i>	—	—	FP	NP
American kestrel <i>Falco sparverius</i>	—	—	—	NP
Merlin <i>Falco columbarius</i>	—	—	CSC ⁵	NP
Peregrine falcon <i>Falco peregrinus</i>	—	ASC	CE/FP	NE
Prairie falcon <i>Falco mexicanus</i>	—	—	CSC	NP
California black rail <i>Laterallus jamaicensis coturniculus</i>	—	ASC	CT/FP	—
Greater sandhill crane <i>Grus canadensis tabida</i>	—	—	CT/FP	—
Western snowy plover (interior population) <i>Charadrius alexandrinus nivosus</i>	FT	ASC	CSC	—
Mountain plover <i>Charadrius montanus</i>	—	—	CSC	—
Long-billed curlew <i>Numenius americanus</i>	—	—	CSC ⁵	—
California gull <i>Larus californicus</i>	—	—	CSC ⁵	—

Common Name <i>Scientific Name</i>	Federal Status ¹	Arizona Status ²	California Status ³	Nevada Status ⁴
Black tern <i>Chlidonias niger</i>	—	—	CSC	—
Greater roadrunner <i>Geococcyx californianus</i>	—	—	—	NP
Long-eared owl <i>Asio otus</i>	—	—	CSC	NP
Short-eared owl <i>Asio flammeus</i>	—	—	CSC	NP
Burrowing owl <i>Athene cunicularia</i>	—	—	CSC	NP
Lesser nighthawk <i>Chordeiles acutipennis</i>	—	—	—	NP
Vaux's swift <i>Chaetura vauxi</i>	—	—	CSC	—
Belted kingfisher <i>Ceryle alcyon</i>	—	ASC	—	NP
Olive-sided flycatcher <i>Contopus cooperi</i>	—	—	CSC	—
Ash-throated flycatcher <i>Myiarchus cinerascens</i>	—	—	—	—
Brown-crested flycatcher <i>Myiarchus tyrannulus</i>	—	—	CSC ⁵	—
Purple martin <i>Progne subis</i>	—	—	CSC	—
Bank swallow <i>Riparia riparia</i>	—	—	CT	—
Swainson's thrush <i>Catharus ustulatus</i>	—	—	CSC	—
Greater roadrunner <i>Geococcyx californianus</i>	—	—	—	NP
Bendire's thrasher <i>Toxostoma bendirei</i>	—	—	CSC	—
Crissal thrasher <i>Toxostoma crissale</i>	—	—	CSC	—
Loggerhead shrike <i>Lanius ludovicianus</i>	—	—	CSC	—
Lucy's warbler <i>Vermivora luciae</i>	—	—	CSC	—
Yellow-breasted chat <i>Icteria virens</i>	—	—	CSC	—

Common Name <i>Scientific Name</i>	Federal Status ¹	Arizona Status ²	California Status ³	Nevada Status ⁴
Northern cardinal <i>Cardinalis cardinalis</i>	—	—	CSC ⁵	—
Abert's towhee <i>Pipilo aberti</i>	—	—	—	—
Large-billed savannah sparrow <i>Passerculus sandwichensis rostratus</i>	—	—	CSC	—
Sage sparrow <i>Aimophila belli</i>	—	—	CSC	—
Grasshopper sparrow <i>Ammodramus savannarum</i>	—	—	CSC	—
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	—	—	CSC	—
Lawrence's goldfinch <i>Carduelis lawrencei</i>	—	—	CSC	—
Reptiles				
Banded Gila monster <i>Heloderma suspectum cinctum</i>	—	—	CSC	NP
Desert rosy boa <i>Lichanura trivirgata gracia</i>	—	—	CSC ⁵	—
Amphibians				
Arizona toad <i>Bufo microscaphus microscaphus</i>	—	—	—	—
Couch's spadefoot toad <i>Scaphiopus couchii</i>	—	—	CSC	—
Invertebrates				
Maricopa tiger beetle <i>Cicindela oregona maricopa</i>	—	—	—	—
Obsolete Viceroy butterfly <i>Limenitis archippus obsoleta</i>	—	—	—	—
Plants				
Mud nama <i>Nama stenocarpum</i>	—	—	—	—

Notes:

¹ Federal Status

FE = Listed as endangered under the Federal Endangered Species Act (ESA).

FT = Listed as threatened under ESA.

FP = Proposed for listing as threatened under ESA.

FC = Candidate for listing under ESA.

² Arizona Status

ASC = Arizona wildlife of special concern.

³ California Status

CE = Listed as endangered under the California Endangered Species Act (CESA).

CT = Listed as threatened under CESA.

FP = Fully protected under the California Fish and Game Code.

CSC = California species of special concern.

⁴ Nevada Status

NE = Nevada endangered

NT = Nevada threatened.

NEP = Nevada critically endangered plant.

NP = Nevada protected.

⁵ Under review by the California Department of Fish and Game for removal from the current list of California Species of Special Concern.

D.1.2 Species Descriptions

The species described in this section are considered sensitive and have special-status, are known or suspected to have occurred in the planning area, and are not covered under the Conservation Plan. Descriptions of individual species are followed by descriptions of groups of species. Descriptions of the relative abundance, seasonal occurrence, and primary habitats of the sensitive bird species that are not covered by the Conservation Plan are presented in Table D-2, which is located at the end of this appendix.

D.1.2.1 Mexican Long-Tongued Bat (*Choeronycteris mexicana*)

The Mexican long-tongued bat is a Federal and California species of special concern and has a high priority conservation ranking with the Western Bat Working group. There are no records for this species from California counties along the lower Colorado River (LCR), however (California Natural Diversity Database 1999). There are no records of this species from Arizona west of the Baboquivari Mountains (Arizona Game and Fish Department 1997g). There is only one record of this species from Las Vegas, Nevada (Constantine 1987). This is a migratory bat that reaches the northern limits of its normal distribution just north of the international boundary with Mexico. Only adult females migrate into the United States (Arizona Game and Fish Department 1997g). There is no evidence of a long-term decline or any clear trend. Disturbance of roosts is a potential threat to individuals and local populations, but because this species is not concentrated in only a few roosts, it is unlikely that this disturbance would ever be significant enough to threaten the species.

D.1.2.2 Occult Little Brown Bat (*Myotis lucifugus occultus*)

The occult little brown bat is a Federal and California species of special concern and has a medium priority conservation ranking with the Western Bat Working group. *M. l. occultus* occurs throughout Arizona and into eastern California, western New Mexico, and central Mexico. In the planning area, this subspecies has been reported along the Colorado River lowlands, the adjacent desert mountain ranges, and at the Grand Canyon (Hall 1981). In Arizona, the occult little brown bat occurs in a variety of habitats, including ponderosa pine forests, oak-pine woodlands (near water), and along the LCR permanent water in riparian forests in some desert areas (Arizona Game and Fish Department 1997a). It is usually closely associated with open water such as rivers, ponds, or reservoirs, and flies low along shorelines while foraging (Hoffmeister 1986). This species roosts in hollows in living or dead trees, under rocks or wood, or sometimes in buildings or mines (New Mexico Department of Game and Fish 1997). This species is declining due to pesticide use, destruction of nesting colonies, collecting by researchers, and human disturbance of hibernating individuals (Williams 1986; Fenton and Barclay 1980).

D.1.2.3 Small-Footed Myotis (*Myotis ciliolabrum*)

The small-footed myotis is a Federal species of special concern and a Bureau of Land Management (BLM) sensitive species in Nevada. It has a medium priority conservation ranking with the Western Bat Working group. It ranges from southern Canada south to central Mexico and from California eastward to west Texas. The species is known from northern Arizona and southern Nevada (Hoffmeister 1986); however, no records were located for the desert areas of southwest Arizona. The habitat in which this species is found includes cottonwood-willow riparian woodlands, pinyon-juniper woodlands, reservoirs, and chaparral. In Arizona, most specimens have been collected among oaks, over chaparral, in riparian areas that support junipers and oaks, and in the lower edge of the oak belt (Hoffmeister 1986). Roosting has been reported in trees, bridges, and holes in rock faces (Hoffmeister 1986; Zeiner et al. 1990). Population trends for this species are not well understood.

D.1.2.4 Fringed Myotis (*Myotis thysanodes*)

The fringed myotis is a BLM sensitive species in Nevada and has a medium priority conservation ranking with the Western Bat Working group. The fringed myotis is known from Mohave County, Arizona, and could potentially occur in suitable habitat throughout the planning area (Hoffmeister 1986; Zeiner et al. 1990). This species occurs in a variety of habitats, ranging from grasslands, scrub, and riparian woodlands to chaparral and pine forests at higher elevations. Oak woodland is the probable preferred habitat (Hoffmeister 1986). As with most bat species, the fringed myotis requires a nearby open water source for foraging and drinking (Hoffmeister 1986; Zeiner et al. 1990). It roosts and breeds in caves, mines, abandoned buildings, and crevices (Zeiner et al. 1990). This species separates into maternity colonies and male colonies during spring and summer months,

although a few males are usually present in the maternity colonies. The population status of this species in Arizona is thought to be stable (Arizona Game and Fish Department 1997b).

D.1.2.5 Cave Myotis (*Myotis velifer*)

The cave myotis is a Federal and California species of special concern and a BLM sensitive species in Nevada. It has a medium priority conservation ranking with the Western Bat Working group. The cave myotis is found in the southwestern half of Arizona and immediately adjacent areas of California, Nevada, and New Mexico (Arizona Game and Fish Department 1997c). There are records of this species along the California-Arizona border in the lowlands of the Colorado River and in the adjacent desert mountain ranges (Hall 1981; Williams 1986). The species has been reported 20 miles north of Yuma near the Colorado River (Arizona Game and Fish Department 1997c). The cave myotis typically inhabits creosote bush, brittlebush, cactus scrub, and riparian habitats. Dense, linear stands of mesquite, saltcedar, and catclaw acacia (*Acacia greggii*) bordering the still water of oxbow ponds are considered optimal foraging areas (Vaughan 1959; Hoffmeister 1986). The cave myotis is an opportunistic feeder, but feeds largely on small moths (Arizona Game and Fish Department 1997c). Near the Riverside Mountains, this species is known to have foraged primarily over the floodplain of the Colorado River (Vaughan 1959). Population trends for this species are not well understood but appear to be declining. Large colonies, each containing approximately 1,000 individuals, have been observed in the past in the Riverside Mountains of Riverside and San Bernardino counties; however, more recent examinations in this area suggest a significant decline in population size (Williams 1986). Like many other cave-dwelling bats, declines in populations of this species are probably due to pesticide use, mining, and loss of riparian habitats, as well as disturbances to roost sites by humans exploring caves or mines, or by the filling or plugging of cave and abandoned mine entrances (Williams 1986). The species is particularly vulnerable at maternity roosts, where they congregate in large numbers (Arizona Game and Fish Department 1997c). The loss of foraging habitat is also a probable contributing factor in the decline of cave myotis populations along the Colorado River (Bolster pers. comm. 1999).

D.1.2.6 Yuma Myotis (*Myotis yumanensis*)

The Yuma myotis is a California species of special concern and a BLM sensitive species in Nevada. It has a low priority conservation ranking with the Western Bat Working group. The range of the Yuma myotis extends across western North America from British Columbia to central Mexico, and from the West Coast to as far east as Idaho and west Texas. This species occurs throughout the planning area (Hall 1981). It is thought to migrate seasonally throughout much of its range. The Yuma myotis prefers cliffs and rocky walls near desert scrub, pinyon-juniper woodlands, and other open woodlands and forests. Like many bat species, it is closely tied to an open water source for foraging and drinking (Zeiner et al. 1990), and tends to be found near permanent watercourses such as the Colorado and Little Colorado rivers (Arizona Game and Fish Department 1997d). Small moths are the preferred food item of this species and are caught while foraging low

over water (Arizona Game and Fish Department 1997d). The Yuma myotis roosts in narrow crevices in rock, bridges, buildings, and, occasionally, mines (Hoffmeister 1986). Preferred roosting habitats, however, are buildings and abandoned cliff swallows' mud nests (Arizona Game and Fish Department 1997d). The current population status of this species is unknown outside of Arizona, where it is considered stable (Arizona Game and Fish Department 1997d).

D.1.2.7 Spotted Bat (*Euderma maculatum*)

The spotted bat is a Federal and California and Nevada species of special concern and a BLM sensitive species in Nevada. It has a high priority conservation ranking with the Western Bat Working group. The spotted bat is reported from scattered locations from southern British Columbia to Montana, and from coastal California, Texas, and northern Mexico (Hall 1981). It is generally considered widespread, but rare. In the planning area, it has been reported from the Yuma area and the Grand Canyon (Hoffmeister 1986). The habitat requirements and preferences of this species are varied and not well understood. It is known to occur in the openings of conifer forests in montane habitats, riparian woodlands, and desert scrub (Hoffmeister 1986; New Mexico Department of Game and Fish 1997; Arizona Game and Fish Department 1998). Roost site localities are poorly known. This species is thought to utilize crevices and cracks in cliff faces, often in the vicinity of open water, for roosting (Arizona Game and Fish Department 1998). Moths seem to be the primary food item of this species, although other insects may be consumed, as well (Arizona Game and Fish Department 1998). Male spotted bats are often observed foraging near the Colorado River in and near the Grand Canyon; however, females are usually observed at higher elevations (Herder pers. comm. 1998). Reproductive behavior is relatively unknown. The population status of the spotted bat is not well known because of the low number of sightings reported. The species appears to be linked to riparian habitats in many areas, which are generally declining throughout the species' range.

D.1.2.8 Allen's Big-Eared Bat (*Indionycteris [Plecotus] phyllotis*)

The Allen's big-eared bat is a BLM sensitive species in Nevada. Allen's big-eared bats range from the Colorado River Valley of Arizona to New Mexico and central Mexico. Within the planning area, this species is likely to occur at the higher elevations along the Mogollon Rim and adjacent mountain ranges. This species is not known to inhabit the southwestern deserts of Arizona (Arizona Game and Fish Department 1997e). The species often forages near open water sources where insects are abundant. The diet of the Allen's big-eared bat consists primarily of small moths. The occurrence of these bats along streams or water sources dominated by mesquite, whitethorn (*Acacia constricta*), or agave (*Agave* spp.) may represent only the utilization of drinking water rather than preferred habitat (Hoffmeister 1986). The population status of Allen's big-eared bats is not clearly known (Arizona Game and Fish Department 1997e). Hoffmeister (1986) suggests that the species may have only recently expanded into the Arizona deserts, based on a lack of records prior to 1955. However, many bat species are declining as a result of

the loss of roosting and foraging habitat to urban expansion, agricultural development, and other factors. The availability of accessible surface water, suitable maternity roost sites, and food resources are limiting factors that could potentially threaten the overall health of populations of this and other bat species. Maternity colonies of this species are easily disturbed, often resulting in abandonment (Arizona Game and Fish Department 1997e).

D.1.2.9 Pallid Bat (*Antrozous pallidus*)

The pallid bat is a California species of special concern and a BLM sensitive species in Nevada. It has a high priority conservation ranking with the Western Bat Working group. It is considered a permanent resident throughout most of its range (Barbour and Davis 1969). It is probably present throughout the LCR Valley, but has only been recorded at a few locations (Hoffmeister 1986). Pallid bats are primarily inhabitants of desert scrub, but have been found in grassland, deciduous woodland-evergreens, and evergreen forest (Hoffmeister 1986). They are gregarious, roosting in small colonies of from a dozen to around a hundred individuals (Barbour and Davis 1969). Day roosts include rock crevices, hollow trees, buildings, mines, bridges, and culverts. Pallid bats have been known to leave roosts as a result of disturbance by human activities (Hoffmeister 1986; Miller 1997), but there is no evidence that the species is threatened by this. Human activities may have benefited the species by providing roost sites and water where none naturally occurred.

D.1.2.10 Pocketed Freetail Bat (*Nyctinomops femorosaccus*)

The pocketed-freetail bat is a California species of special concern. It has a medium priority conservation ranking with the Western Bat Working group. This species is known from southern California east to New Mexico and Texas, and south to at least Michoacan, Mexico. Known distribution within this range is very spotty. It is not known from Nevada (Nevada Natural Heritage Program 1999). There are no records from the LCR valley (Hoffmeister 1986; California Natural Diversity Database 1999). Known roosts include buildings, caves, and crevices in rocky cliffs in semi-arid desert lands (Noel and Johnson 1993). Colonies are small, consisting of less than 100 individuals (Barbour and Davis 1969; Noel and Johnson 1993). Food species include moths, crickets, flying ants, stinkbugs, froghoppers and leafhoppers, lacewings, and unidentified insects (Schmidly 1991). There is no reported evidence of a population decline.

D.1.2.11 Big Freetail Bat (*Nyctinomops macrotis*)

The big freetail bat is a California species of special concern. It has a medium priority conservation ranking with the Western Bat Working group. The big freetail bat is found from northern South America and the Caribbean Islands northward through Mexico into the western U.S. reaching Iowa and British Columbia, Canada (Noel and Johnson 1993). Within this broad range, distribution and season of occurrence appears to be very spotty

and not well understood. There are no known records from the LCR Valley (Hoffmeister 1986; California Natural Diversity Database 1999; Nevada Natural Heritage Program 1999). In Arizona, this species has been captured in a variety of habitats from desert scrub to ponderosa pine. They appear to roost in rugged, rocky areas of desert scrub, in rock crevices and fissures in cliffs (Hoffmeister 1986; Noel and Johnson 1993). They have also been known to roost in buildings (Schmidly 1991). Food includes a wide variety of flying insects. There are no records of this species from the planning area. There is no available information on population status of this species. This is a rarely observed, poorly known species.

D.1.2.12 Greater Western Mastiff Bat (*Eumops perotis californicus*)

The greater western mastiff bat is a Federal, California, and Arizona species of special concern and a BLM sensitive species in Nevada. It has a high priority conservation ranking with the Western Bat Working group. This species ranges from San Francisco Bay east to Arizona and Texas, then south to northwestern and central Mexico (Arizona Game and Fish Department 1997f). In the planning area, it occurs in Arizona, California, and Nevada. The distribution of this species in Arizona, where it is considered a year-round resident, includes the Grand Canyon region, western Arizona, and south of the Mogollon Rim (Arizona Game and Fish Department 1996a). Mastiff bats favor rugged, rocky areas in Sonoran desert scrub habitats, where suitable crevices are available for day-roosts (Arizona Game and Fish Department 1996a). They require long or unobstructed waterways for drinking, and feed on moths, bees, wasps, and flying ants that get caught in thermal currents (Arizona Game and Fish Department 1996a). Although the population status of the greater western mastiff bat is not well known, populations in Arizona may be declining and some roost sites are no longer occupied (Arizona Game and Fish Department 1996a, 1997f). Populations in California are believed to have undergone significant declines in recent years, primarily due to extensive loss of habitat and the widespread use of insecticides (Williams 1986). In other areas, greater western mastiff bat populations appear to be fairly stable (New Mexico Department of Game and Fish 1997).

D.1.2.13 Yuma Puma (*Felis concolor browni*)

The Yuma puma is a Federal and California species of special concern. The historic range of the Yuma puma purportedly includes western Arizona south of Lake Mead and as far east as Gila Bend; southeastern California, south of Interstate 15 (I-15) and west of Calexico; southeastern Nevada, south of Las Vegas; and south into northern Baja California, Mexico (Hall 1981; Harvey and Stanley Associates 1987). Most observations between 1984 and 1986 were made in the triangle area between Cibola and Imperial National Wildlife Refuges (NWRs) and Picacho SRA. Additional records for this time period show the species occurred along the Colorado River in a 50-mile stretch between Parker Dam and the Havasu NWR (Harvey and Stanley Associates 1987). Pumas typically occur in remote, hilly, or mountainous areas. They require open water sources, such as streams or rock pools, large foraging areas, and rocky shelters or caves for

denning. The Yuma puma is active year round and may travel up to 25 miles per night in search of food. Prey include mule deer (up to 60–80% of its diet), bighorn sheep, wild burros, skunk, badger, raccoon, javelina, cattle, and rabbits (Harvey and Stanley Associates 1987). Historically, Yuma pumas were most closely associated with dense bottomland vegetation along the Colorado River (Grinnell 1933). Although this species is known to hunt alternative prey species successfully, the population level and distribution of deer along the LCR probably influence the population level and movements of the Yuma puma in the planning area.

D.1.2.14 Harris' Hawk (*Parabuteo unicinctus*)

This raptor was a former resident of the planning area but was extirpated from the region during the 1960s. Population expansion in northern Baja California, however, has brought individuals once again into southern California and the planning area in recent years, including one individual currently persisting near Blythe. Harris' hawks are most often associated with large stands of open mesquite, but will also willow groves, usually near backwaters and marshes along the LCR. (Rosenberg et al. 1991.)

D.1.2.15 Burrowing Owl (*Athene cunicularia*)

The burrowing owl is a California species of special concern that inhabits open areas wherever soil is suitable for excavating nesting burrows (Haug et al. 1993). The species may use the burrows of other animals, such as California ground squirrel, prairie dog, and badger. Common prey includes rodents, frogs, small birds, invertebrates, and carrion (Zarn 1974; Johnsgard 1988). Burrowing owls breed throughout the LCR Valley (Rosenberg et al. 1991) with nesting density ranging from one to eight pairs per 0.6 square mile (Johnsgard 1988).

D.1.2.16 Long-eared Owl (*Asio otus*)

Long-eared owls are rare visitors that have been documented to breed in the planning area (Rosenberg et al. 1991). Because of their secretive and nocturnal behavior they may be more regular than the paucity of records indicate. They often nest in large trees such as Athel tamarix and cottonwood, especially where there is thick cover, a dense overstory and proximity to foraging areas such as: open grasslands, agricultural fields and/or marshes.

D.1.2.17 Arizona Toad (*Bufo microscaphus microscaphus*)

The Arizona toad is a Federal species of concern, but has no state legal status in Arizona, California, or Nevada. The toad is known to occur in Apache, Coconino, Gila, Graham, Greenlee, La Paz, Maricopa, Mohave, Navajo, and Yavapai counties in Arizona, and the

Arizona Heritage Data Management System records its elevation ranges from 480–8,400 feet (Arizona Game and Fish Department 2002). Based on the county distribution of the Arizona toad, the species has the potential to occur in the upper reaches of the planning area. The Arizona toad inhabits rocky streams, washes, and arroyos; eggs are laid in strings at the bottom of pools. Adult Arizona toads are predaceous on insects and other small invertebrates (Arizona Game and Fish Department 2002).

D.1.2.18 Couch's Spadefoot Toad (*Scaphiopus couchii*)

The Couch's spadefoot toad is a California Species of Special Concern, but has no Federal status or status in Arizona or Nevada. In California, the toad is known to occur in San Bernardino, Riverside, and Imperial counties. In Arizona, Couch's spadefoot toad has been reported from Cochise County (New Mexico Department of Game and Fish 2000). The California Natural Diversity Database (CNDDDB) records an occurrence of Couch's spadefoot toad near Palo Verde in an agricultural area within the planning area (California Natural Diversity Database 2003). Stebbins (1985) describes habitat as shortgrass prairie, mesquite savannah, and creosote bush desert. The toad spends much of its life dormant in burrows, emerging to breed at the commencing of summer rains. This species requires rainpools lasting at least seven days to breed and for the resulting tadpoles to have sufficient time to complete metamorphosis. Couch's spadefoot toad is insectivorous, with its primary prey items being winged termites (Jennings and Hayes 1994).

D.1.2.19 Banded Gila Monster (*Heloderma suspectum cinctum*)

The banded Gila monster is a Federal Species of Concern, a Species of Special Concern in California, and is protected under Nevada Revised Statute 501 in Nevada. It has no legal status in Arizona. The species is known to occur in La Paz, Mohave, Yavapai, and Yuma counties in Arizona (Arizona Game and Fish Department 2003); San Bernardino County in California (Jennings and Hayes 1994); and in Clark, Lincoln, and Nye counties in Nevada (Nevada Natural Heritage Program 2002). The banded Gila monster occurs in several desert plant associations, but can also occur in mesquite grassland, creosote bush, and single-leaf pinyon-western juniper vegetation types. Banded Gila monsters have also been found in willow-, mesquite-, saltcedar-, and mulefat-dominated canyons in California, but have not been found from similar areas or agricultural lands in Arizona. The range of this species includes the LCR Basin (Jennings and Hayes 1994). Banded Gila monsters use animal burrows or natural crevices to take shelter in during the night and to overwinter. They are opportunistic feeders and may forage up to a distance of about 0.6 miles in a single day (Jennings and Hayes 1994).

D.1.2.20 Desert Rosy Boa (*Lichanura trivirgata gracia*)

The desert rosy boa is a subspecies of the rosy boa (*Lichanura trivirgata*). The rosy boa is a Federal and California Species of Concern. Most of the life history information available is for the species level. The known range of the rosy boa includes the LCR; however, Stebbins (1985) names several desert rosy boa populations in the mountains of west and southwest Arizona. The subspecies is known to occur in La Paz, Maricopa, Mohave, Pima, Yavapai, and Yuma counties in Arizona (Arizona Game and Fish Department 2003), and elevations of the rosy boa range from sea level to 4,500 feet (Stebbins 1985). Rosy boas inhabit rocky shrubland and desert, but are attracted to intermittent and permanent watercourses (Stebbins 1985). The desert rosy boa appears to have the potential to occur within the planning area.

D.1.2.21 Maricopa Tiger Beetle (*Cicindela oregona maricopa*)

The Maricopa tiger beetle is a Federal species of concern (Arizona Game and Fish Department 2003). This species has no state status, but is a U.S. Fish and Wildlife Service (USFWS) and BLM-designated sensitive species. Collections of this beetle were made in Mohave County, but the proximity to the LCR is unclear. Collection elevations have ranged between 1,092–6,940 feet (Arizona Game and Fish Department 2001a). The Maricopa tiger beetle has the potential to occur within the Lake Mead area of the planning area. The Maricopa tiger beetle is often found on sandy stream banks, and less often found on gravel or clay stream banks or near seeps and reservoirs. The beetle larvae require substrate suitable for burrowing as well as retaining moisture to prevent desiccation. Tiger beetles are predaceous on other insects (Arizona Game and Fish Department 2001a).

D.1.2.22 Obsolete Viceroy Butterfly (*Limenitis archippus obsoleta*)

The obsolete Viceroy butterfly has no Federal or Arizona legal status at this time. It is, however, a Service designated sensitive species. Its range in Arizona extends from Cochise, Graham, and Greenlee counties in the east, to the Colorado River in the west, and into southeastern Nevada. Collection elevations are reported below 5,906 feet and Arizona's Natural Heritage Program records range from 2,040–4,100 feet (Arizona Game and Fish Department 2001b). The butterfly has the potential to occur in riparian areas along the LCR, but records for Yuma, La Paz, and Mohave counties are not available (Arizona Game and Fish Department 2003).

All life stages of the obsolete Viceroy butterfly are associated with the host plant, willow (*Salix*). Eggs are laid on the tips of leaves. Larvae eat leaves and catkins. The larva overwinters in a shelter called a hibernaculum in which the individual rolls a leaf into a tube-like structure and fixes it in place with silk. Pupation also occurs on the host. Adults are often spotted in stands of healthy willow. Adults visit flowers but prefer to

feed on tree sap and dung. Habitat is riparian areas with abundant willow (Arizona Game and Fish Department 2001b).

D.1.2.23 Mud Nama (*Nama stenocarpum*)

Mud nama (*Nama stenocarpum*) is a low-growing annual species in the waterleaf family (Hydrophyllaceae). It has no state or Federal listing status, although it is on the California Native Plant Society's List 2, for species that are rare, threatened or endangered in California but more common elsewhere. Mud nama is known from scattered occurrences in southwestern California (from Los Angeles to San Diego County), ranging east to Texas and south into Mexico. It is known from historic collections along the Colorado River near Yuma. It grows in intermittently wet habitats such as mud flats, lake shores, and river banks.

D.1.2.24 Piscivorous Birds

Piscivores are fish-eating species that include the following special-status species: brown (*Pelecanus occidentalis*) and American white pelicans (*Pelecanus erythrorhynchos*), double-crested cormorant (*Phalacrocorax auritus*), bald eagle (*Haliaeetus leucocephalus*) and osprey (*Pandion haliaetus*). All of these piscivores forage in open water for fish, although bald eagles will rob osprey of their fish catch and will also take waterfowl, especially those wounded by hunters. Pelicans prefer to rest on sandbars, especially on islands and most often in reservoirs. Cormorants loaf on these same sandbars, but also on large snags. Bald eagles and osprey generally prefer to perch on large snags and exposed branches on tall, living trees, but eagles will occasionally perch on sandbars as well.

There are a few records of single juvenile brown pelicans wandering from their nesting grounds in Mexico to reservoirs in the planning area, primarily in the late summer and early fall. American white pelicans are uncommon migrants from March to May and late September to October when most are seen flying over the river and reservoirs and only occasionally seen resting in marshes and on sandbars in the river. Double-crested cormorants breed in the Topock Marsh and the Imperial NWR, and are commonly found during the migration and winter periods throughout the river and reservoirs in the planning area. A few bald eagles winter annually in the planning area and most are immatures that arrive by mid-October and depart by mid-March. Most osprey in the planning area occur during the migration periods, although some remain throughout the year in the Laguna-Imperial Dam areas and Lake Havasu, and a few remain to winter at additional locations (Rosenberg et al. 1991).

D.1.2.25 Wading Birds

Waders are long-legged birds that prey upon vertebrates and invertebrates in both shallow aquatic and agricultural environments. These include the following special-status species: American bittern (*Botaurus lentiginosus*), great blue heron (*Ardea herodias*),

great egret (*Ardea alba*), snowy egret (*Egretta thula*), black-crowned night-heron (*Nycticorax nycticorax*), white-faced ibis (*Plegadis chihi*) and wood stork (*Mycteria americana*). The American bittern is mostly restricted to marshes with dense cover and is uncommon in the planning area where it can be found from mid-August to early May. The white-faced ibis is a common migrant from March to May and late July to October, and a few remain through the winter. The wood stork is an increasingly rare post-breeding visitor to the planning area with few records during the past decade. The remaining species are common residents that breed locally throughout the planning area (Rosenberg et al. 1991).

D.1.2.26 Waterfowl

These special-status waterfowl nest in marshes. The fulvous whistling-duck (*Dendrocygna bicolor*) is an increasingly rare post-breeding visitor to the planning area with few records since 1970. The redhead (*Aythya americana*) has not been documented to breed in the planning area since 1943 and remains an uncommon migrant and winter visitor from mid-October to March, with a few found during the remaining months. Clark's grebe (*Aechmophorus clarkii*) is classified as a waterfowl because of its shared natural history attributes with ducks. Within the planning area it is a common resident of the Lake Havasu area. When not breeding, the latter two species frequent open water on reservoirs and in the main river channel, while the whistling-duck prefers backwaters and marshes (and rice fields in other regions) with vegetation for cover (Rosenberg et al. 1991).

D.1.2.27 Wintering and/or Migratory Hawks

These raptors prey upon rodents, snakes and small birds, and forage in agricultural fields and open riparian land cover types. The following special-status hawks migrate through and/or winter in the planning area: white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperi*), Swainson's hawk (*Buteo swainsoni*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos*), American kestrel (*Falco sparverius*), merlin (*Falco columbarius*), peregrine falcon (*Falco peregrinus*), and prairie falcon (*Falco mexicanus*). White-tailed kites are extremely rare in the planning area and may be increasing in the future due to expanded populations in southern California and perhaps Mexico. Northern harriers are common wintering and transient raptors throughout the planning area, primarily from September through March. Small numbers of Swainson's hawks migrate throughout the planning area from mid-August to mid-October and again from late March to mid-May. Golden eagles are rare fall and winter visitors to the planning area. American kestrels are locally uncommon breeders within the planning area and their numbers have been greatly reduced due to the reduction of available suitable cavities for nesting. This breeding population is greatly augmented during the winter by migrants, when the species is found throughout the planning area in most land cover types, especially agricultural fields. Merlins are rare migrants and winter visitors. Peregrine falcons are rare visitors during migration, winter and late summer, but are likely to increase in the planning area due to the species' population recovery and expansion in recent years. Prairie falcons are

uncommon migrants and winter visitors throughout the planning area from September to late March (Rosenberg et al. 1991).

D.1.2.28 Agriculture and Upland Birds

Species closely associated with agricultural and grassland land cover types in the planning area include the following special-status species: greater sandhill crane (*Grus canadensis tabida*), western snowy plover (*Charadrius alexandrinus nivosus*), mountain plover (*Charadrius montanus*), long-billed curlew (*Numenius americanus*), California gull (*Larus californicus*), short-eared owl (*Asio flammeus*), loggerhead shrike (*Lanius ludovicianus*), and grasshopper sparrow (*Ammodramus savannarum*). Greater sandhill cranes are common winter visitors to traditional wintering grounds in the planning area from early October to early March; including Cibola NWR, near Poston and Bullhead City. Western snowy plovers are rare spring migrants and winter visitors and uncommon fall migrants in flooded agricultural fields in the planning area. Mountain plovers are uncommon migrants and winter visitors to a few locations within the planning area including the agricultural fields along River Road north of Needles, near Parker, Blythe, and Yuma. Long-billed curlews are common migrants primarily from March through April and again from mid-July to October. California gulls are uncommon to common migrants from late July through October and again from mid-March through April. They forage primarily in flooded, plowed fields. A few remain to winter where they are found at dams and along the shores of the reservoirs. Short-eared owls are rare to locally uncommon winter visitors from November through March. Loggerhead shrikes are common winter visitors throughout the planning area, with fewer remaining in summer and these primarily breed in upland desert scrub. Grasshopper sparrows are rare migrants and wintering visitors throughout the planning area (Rosenberg et al. 1991).

D.1.2.29 Riparian-Dependent Song-Birds (Passerines)

Species closely associated with riparian land cover type in the planning area include following special-status species: ash-throated flycatcher (*Myiarchus cinerascens*), brown-crested flycatcher (*Myiarchus tyrannulus*), Bendire's thrasher (*Toxostoma bendirei*), crissal thrasher (*Toxostoma crissale*), Lucy's warbler (*Vermivora luciae*), yellow-breasted chat (*Icteria virens*), Abert's towhee (*Pipilo aberti*), and Lawrence's goldfinch (*Carduelis lawrencei*).

Ash-throated flycatchers are widespread, common breeders throughout the riparian and desert scrub land cover types with a few remaining in desert scrub and open mesquite woodlands. They tend to occupy and forage in more xeric habitats, such as the mesquite bosques and the desert washes immediately adjacent to the floodplain, as well as in saltcedar and cottonwood/willow (Rosenberg et al. 1991; Cardiff and Dittman 2000). Brown-crested flycatchers are a declining and a rare to locally uncommon species of mature cottonwood/willow land cover types. Brown-crested flycatchers require mature cottonwood, willow and/or mesquite woodland for breeding but will sometimes range into mixed screwbean mesquite, and *Tamarix* (Cardiff and Dittman 2000). Both ash-throated and brown-crested flycatchers are cavity nesters that require woodpeckers to

excavate cavities and shrubs or trees with large branches to provide nest-cavity substrates. Along the LCR, they typically nest in cavities excavated by Gila woodpeckers and Ladder-backed woodpeckers (Rosenberg et al. 1991).

Bendire's thrashers are upland desert species that are rare migrants and wintering visitors in the planning area, primarily to open riparian scrub and edges of agricultural areas. Crissal thrashers, on the other hand, are common residents of riparian areas throughout the planning area. They are mostly associated with mesquite woodland but occupy nearly all of the available riparian land cover types. Lucy's warblers nest in highest densities in mature mesquite woodland but will also range into other riparian land cover types, including Athel tamarix, saltcedar, and cottonwood/willow, although they avoid cottonwood/willow types I and II. They are early migrants that arrive in mid-March but leave by mid-July. Yellow-breasted chats are uncommon in cottonwood/willow, and mature stands of pure or mixed mesquite and saltcedar throughout the planning area from April to September. Abert's towhees are common and widespread residents throughout the riparian areas in the planning area. They are mostly associated with mesquite woodland but occupy nearly all of the available riparian land cover types. Lawrence's goldfinches are irregularly found in the planning area. Some years they are common migrants and winter visitors and have even bred, but other years they are absent (Rosenberg et al. 1991).

D.1.2.30 Neotropical Migratory Birds that Do Not Winter or Breed along the LCR

Neotropical migratory birds migrate each year to wintering grounds in Mexico, Central and South America, and the Caribbean and the following special-status species are only found within the planning area during migration: Vaux's swift (*Chaetura vauxi*), olive-sided flycatcher (*Contopus cooperi*), purple martin (*Progne subis*), bank swallow (*Riparia riparia*), and Swainson's thrush (*Catharus ustulatus*). Vaux's swifts are uncommon to common migrants throughout the planning area from mid-April to mid-May and again from late August to mid-October. Olive-sided flycatchers are uncommon migrants throughout the planning area from late April to early June and again from late August to mid-September. Purple martins are rare, but annual migrants in the planning area from mid-April to mid-May and again from late July to early October. Bank swallows are uncommon migrants throughout the planning area from mid-April to mid-May and again from mid-July to early October. Primarily found in the Yuma region within the planning area, Swainson's thrushes are rare to uncommon spring migrants from May to early June but are nearly non-existent during the fall (Rosenberg et al. 1991).

D.1.2.31 Sensitive Plant Communities

The CNDDDB identifies the following sensitive plant communities in the planning area: Sonoran Cottonwood-Willow Riparian Forest, Mesquite Woodland, and Alkali Bulrush-Cattail Marsh and Brackish Bulrush-Cattail Marsh.

D.2 Non-Covered Sensitive Species That Could Be Present in the Off-Site Conservation Areas

D.2.1 Moapa Dace (*Moapa coriacea*)

The Moapa dace is a Federal- and Nevada-listed endangered species that inhabits approximately 6 miles of spring and stream outflows along the Muddy River. All life stages inhabit tributaries to the Muddy River, but only adults use the mainstem of the river. This species spawns in thermal pools year around with most spawning occurring in the spring. Declines in species abundance are attributed to loss of habitat, introduction of non-native predator/competitor species, and parasites.

D.2.2 Virgin River Spinedace (*Lepidomeda mollispinis*)

The Virgin River spinedace is a Nevada protected species that inhabits the Virgin River and its tributaries. This species is primarily associated with pools. The Virgin River spinedace spawns from April-June in the downstream end of pools over gravels and sands. Declines in species abundance are attributed to loss of habitat, reduction in water quality, and the introduction of non-native predators.

D.2.3 Woundfin (*Plagopterus argentsimus*)

The woundfin is a Federal- and Nevada-listed endangered species that is known to historically have inhabited the LCR, the Virgin River in Nevada and Utah, and the Gila River in Arizona. Designated critical habitat extends down to Halfway Wash on the Virgin River, which is within part of the off-site area. Currently, it is only known to occur in the Virgin River downstream of Pah Tempe Springs and in La Verkin Creek, at tributary to the Virgin River. This species tends to inhabit runs and slower waters near riffles. The woundfin spawns during spring over cobble and gravel substrates in swift water. Declines in species abundance are attributed to loss of habitat and introduction of non-native predator/competitor species.

D.2.4 Virgin River Chub (*Gila seminuda*)

Two distinct populations of the Virgin River chub are present in the conservation area, one in the Virgin River and one in the Muddy River. The Virgin River population is a Federal- and Nevada-listed endangered species and the Muddy River population is a Nevada sensitive species. The Virgin River chub primarily inhabits deep, slow moving runs and pools with sufficient instream cover (e.g., rootwads, boulders). Declines in species abundance are attributed to loss of habitat and introduction of non-native predator/competitor species.

D.2.5 Aegialian Scarab Beetle (*Aegialia knighti*)

The Aegialian scarab beetle has no legal status, and is endemic to Clark County, Nevada, near the town of Logandale and the Muddy River (Nevada Natural Heritage Program 2000). The Aegialian scarab beetle's known range overlaps or is adjacent to the Muddy River offsite conservation area. The beetle was originally described in 1997 and is currently known only from its type locality. The beetle has been collected from sand hills and blowouts and its habitat is described as desert vegetation such as creosote bush, Mojave yucca, white bursage, *Opuntia* cactus, and *Atriplex* species (NatureServe 2003). Life history and habitat requirements information on this species is scarce to unavailable, but beetles in the Family Scarabaeidae, Subfamily Aphodiinae eat dung and other decaying organic materials. Adults make dung balls, which they roll to a secure place underground and into which a female lays her eggs. The eggs hatch and the larvae eat and develop inside the dung ball (Borror, Tripplehorn, and Johnson 1992).

D.2.6 Las Vegas Bearpoppy (*Arctomecon californica*)

The Las Vegas bearpoppy is a short-lived perennial herb in the poppy family (Papaveraceae). It has no Federal listing status but is listed as critically endangered plant in Nevada. The Las Vegas bearpoppy ranges from Clark County, Nevada, into northwest Arizona and has been introduced in Utah. The species is known from around Lake Mead. It is associated with several desert scrub communities, including creosote bush (*Larrea tridentata*), saltbush (*Atriplex* spp.), and blackbush (*Coleogyne ramosissima*) scrubs. It occurs on open, dry, spongy or powdery, dissected ("badland") or hummocked soils with high gypsum content, often with well-developed soil crust, in areas of generally low relief on all aspects and slopes, with a sparse cover of other gypsum-tolerant species. It occurs between 1050 and 3650 feet mean sea level.

D.2.7 Virgin River Thistle (*Cirsium virginensis*)

Virgin River thistle is a spiny perennial herb in the sunflower family (Asteraceae). It has no state or Federal listing status, but it is a Nevada Native Plant Society Watch-list species, for species potentially vulnerable to becoming threatened or endangered. Virgin River thistle ranges from Clark County, Nevada, east into Arizona and Utah. It occurs on moist, alkaline clay soils of seep and spring areas or gypsum knolls. The species is known to inhabit springs and seeps along the Virgin River system and has been reported from the Overton Wildlife Management Area located adjacent to the Muddy River.

1 **Table D-2.** Description of Non-Covered Sensitive Bird Species That Could Be Present in the Planning Area

Common Name <i>Scientific Name</i>	Relative Abundance ¹	Seasonal Occurrence ²	Primary Habitat
Clark's grebe <i>Aechmophorus clarkii</i>	Common	Year-round	Breeds in open marshes, forages/rests in open water in reservoirs
California brown pelican <i>Pelecanus occidentalis</i>	Rare	Late summer and fall	Forages in open water in reservoirs, rests on sandbars
American white pelican <i>Pelecanus erythrorhynchos</i>	Uncommon	Migrant, a few remain in winter	Forages in open water in reservoirs, rests on sandbars
Double-crested cormorant <i>Phalacrocorax auritus</i>	Common	Year-round	Forages in open water in reservoirs, rests on sandbars and perches in trees, breeds on large trees
American bittern <i>Botaurus lentiginosus</i>	Uncommon	Winter	Forages in dense marshes, generally avoids Phragmites-dominated marshes
Great blue heron <i>Ardea herodias</i>	Common	Year-round	Forages in marshes and along river banks and backwaters, reservoir shorelines, as well as in agricultural fields and irrigation ditches
Great egret <i>Ardea alba</i>	Common	Year-round	Forages in marshes and along river banks and backwaters, reservoir shorelines, as well as in agricultural fields and irrigation ditches
Snowy egret <i>Egretta thula</i>	Common	Year-round	Forages in marshes and along river banks and backwaters, reservoir shorelines, as well as in agricultural fields and irrigation ditches
Black-crowned night-heron <i>Nycticorax nycticorax</i>	Common	Year-round	Forages in marshes and along river banks and backwaters, reservoir shorelines, as well as in agricultural fields and irrigation ditches
White-faced ibis <i>Plegadis chihi</i>	Uncommon	Year-round	Forages and breeds in marshes, also forages in agricultural fields, especially flood irrigated alfalfa
Wood stork <i>Mycteria Americana</i>	Casual	Post-breeding visitor	Forages along river banks and backwaters
Turkey vulture <i>Cathartes aura</i>	Common	Year-round	Forages throughout, but nests on or near ground, primarily on cliff faces, and perhaps in cottonwood/willow stands in the LCR
Fulvous whistling-duck <i>Dendrocygna bicolor</i>	Casual	Post-breeding visitor	Forages in marshes, formerly bred in extensive marshes in the LCR
Redhead <i>Aythya Americana</i>	Uncommon	Winter	Forages in marshes and open water in river channel and in reservoirs, formerly bred in extensive marshes in the LCR
Osprey <i>Pandion haliaetus</i>	Uncommon	Migrant, a few remain in winter	Forages in open water in river channel and in reservoirs, roosts in tall trees
Bald eagle <i>Haliaeetus leucocephalus</i>	Rare	Winter	Forages in open water in river channel and in reservoirs, roosts in tall trees

Common Name <i>Scientific Name</i>	Relative Abundance ¹	Seasonal Occurrence ²	Primary Habitat
White-tailed kite <i>Elanus leucurus</i>	Casual	Winter	Forages in agricultural fields, roosts in trees and shrubs
Northern harrier <i>Circus cyaneus</i>	Common	Winter	Forages in agricultural fields and open riparian areas
Cooper's hawk <i>Accipiter cooperi</i>	Common	Winter, former breeder	Forages primarily in riparian woodlands
Harris' hawk <i>Parabuteo unicinctus</i>	Casual	Year-round, former breeder	Forages primarily in riparian woodlands and mesquite scrub
Swainson's hawk <i>Buteo swainsoni</i>	Uncommon	Migrant	Forages in agricultural fields and open riparian areas
Ferruginous hawk <i>Buteo regalis</i>	Uncommon	Winter	Forages in agricultural fields
Golden eagle <i>Aquila chrysaetos</i>	Rare	Winter	Forages in agricultural fields and open riparian areas
American kestrel <i>Falco sparverius</i>	Common	Year-round	Forages in agricultural fields and riparian areas, breeds in cavities in large trees
Merlin <i>Falco columbarius</i>	Uncommon	Winter	Forages in agricultural fields and open riparian areas, roosts in trees and on fences
Peregrine falcon <i>Falco peregrinus</i>	Rare	Winter, former breeder	Forages in agricultural fields and water areas with concentrations of waterfowl
Prairie falcon <i>Falco mexicanus</i>	Uncommon	Winter	Forages in agricultural fields and open riparian areas
Greater sandhill crane <i>Grus canadensis tabida</i>	Common	Winter	Forages in agricultural fields
Western snowy plover (interior population) <i>Charadrius alexandrinus nivosus</i>	Rare	Migrant	Forages in agricultural fields; also found in marshes
Mountain plover <i>Charadrius montanus</i>	Uncommon	Winter	Forages in agricultural fields
Long-billed curlew <i>Numenius americanus</i>	Common	Migrant	Forages in agricultural fields
California gull <i>Larus californicus</i>	Common	Migrant, a few remain in winter	Forages in agricultural fields, roosts in open water and on sandbars
Black tern <i>Chlidonias niger</i>	Uncommon	Migrant	Forages in open water
Greater roadrunner <i>Geococcyx californianus</i>	Common	Year-round	Forages and breeds in open scrub
Long-eared owl <i>Asio otus</i>	Rare	Year-round	Forages in agricultural fields and open riparian, breeds in dense riparian woodland

Common Name <i>Scientific Name</i>	Relative Abundance ¹	Seasonal Occurrence ²	Primary Habitat
Short-eared owl <i>Asio flammeus</i>	Rare	Winter	Forages in agricultural fields and open riparian
Burrowing owl <i>Athene cunicularia</i>	Uncommon	Year-round	Forages in agricultural fields and nests in burrows found along earthen berms (e.g., canal embankments)
Lesser nighthawk <i>Chordeiles acutipennis</i>	Common	Summer	Forages over open water, agricultural fields and open riparian
Vaux's swift <i>Chaetura vauxi</i>	Uncommon	Migrant	Forages over open water, agricultural fields and open riparian
Belted kingfisher <i>Ceryle alcyon</i>	Common	Winter	Forages in marshes and along river banks and backwaters, reservoir shorelines, as well as in irrigation ditches
Olive-sided flycatcher <i>Contopus cooperi</i>	Uncommon	Migrant	Forages in mature cottonwood/willow woodland, parks, suburban areas, golf courses, and sometimes in mature honey mesquite
Ash-throated flycatcher <i>Myiarchus cinerascens</i>	Common	Year-round, Fewer in winter	Forages and breeds in riparian areas and desert scrub
Brown-crested flycatcher <i>Myiarchus tyrannulus</i>	Rare	Summer	Forages and breeds in mature cottonwood/willow woodland, parks, suburban areas, golf courses, and sometimes in mature honey mesquite
Purple martin <i>Progne subis</i>	Rare	Migrant	Forages over open water, agricultural fields and open riparian
Bank swallow <i>Riparia riparia</i>	Uncommon	Migrant	Forages over open water, agricultural fields and open riparian
Swainson's thrush <i>Catharus ustulatus</i>	Uncommon	Spring Migrant	Forages in cottonwood/willow woodland, parks, suburban areas, golf courses, and sometimes in honey mesquite
Bendire's thrasher <i>Toxostoma bendirei</i>	Rare	Winter, a few spring records	Forages in riparian and upland desert scrub
Crissal thrasher <i>Toxostoma crissale</i>	Common	Year-round	Forages and breeds in riparian scrub
Loggerhead shrike <i>Lanius ludovicianus</i>	Common	Year-round, less common breeder in valley floor	Forages in agricultural fields and open riparian areas, breeds in trees and shrub in agricultural landscape and in riparian areas
Lucy's warbler <i>Vermivora luciae</i>	Common	Summer	Forages and breeds in mesquite and cottonwood/willow woodland
Yellow-breasted chat <i>Icteria virens</i>	Uncommon	Summer	Forages and breeds in mesquite and cottonwood/willow woodland
Northern cardinal <i>Cardinalis cardinalis</i>	Rare	Year-round	Forages and breeds in riparian scrub and suburban areas

Common Name <i>Scientific Name</i>	Relative Abundance ¹	Seasonal Occurrence ²	Primary Habitat
Abert's towhee <i>Pipilo aberti</i>	Common	Year-round	Forages and breeds in riparian woodland and scrub, also in edges of agricultural fields
Large-billed savannah sparrow <i>Passerculus sandwichensis rostratus</i>	Rare	Winter	Forages in open scrub and perhaps in agricultural fields
Sage sparrow <i>Aimophila belli</i>	Uncommon	Winter	Forages in inkweed/open mesquite scrub
Grasshopper sparrow <i>Ammodramus savannarum</i>	Rare	Winter	Forages in agricultural fields
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	Common	Year-round	Breeds and forages in marshes, also forages in agricultural fields
Lawrence's goldfinch <i>Carduelis lawrencei</i>	Varies, annually from absent to common	Winter, a few breeding records	Forages in mesquite, riparian scrub, and edges of agricultural fields

Notes:

- ¹ Common = Found throughout appropriate habitat in densities equivalent to species population center.
 Uncommon = Found only locally in appropriate habitat in densities lower than in species population center.
 Rare = Found rarely and sporadically in appropriate habitat, with low and/or declining population in the LCR Valley.
- ² Winter = mostly September to April; includes fall and spring migration periods (varies according to species).
 Migration = fall period from August to November; spring period from March to June (varies according to species).
 Summer = June to August; includes spring and fall migration periods (varies according to species).

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